

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-11 and 13-36 are pending in the application, with claims 1, 35 and 36 being the independent claims.

Claims 1-7, 9-11, 13-17, 19-21, 24-34 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,955,038 to Gadow, *et al.* (hereinafter, "Gadow") in view of U.S. Patent No. 3,622,492 to Kinney (hereinafter, "Kinney"). Claims 8, 18, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gadow in view of Kinney and further in view of U.S. Patent No. 6,024,930 to Racca, *et al.* (hereinafter, "Racca"). Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gadow in view of Kinney and U.S. Patent No. 5,411,713 to Iwanaga (hereinafter, "Iwanaga").

Based on the following Remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and they be withdrawn.

**I. Claims 1-7, 9-11, 13-17, 19-21, 24-34 and 36
are Patentable over Gadow in view of Kinney**

Claims 1-7, 9-11, 13-17, 19-21, 24-34 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gadow, in view of Kinney. For the following reasons, this rejection is respectfully traversed.

Claims 1 and 36 recite "a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween." Both Gadow and Kinney, alone or in combination, fail to disclose or suggest this recitation.

Gadow discloses an ozonizer that may take the form of a pipe or as two parallel plates having a narrow gap 118 through which gas is directed. *See* FIG. 2 and col.6, ll.65-67. The ozonizer disclosed by Gadow overcomes what are identified as problems with prior art ozonizers by providing an apparatus of small, compact size for creating plasma to decontaminate contaminated material. *See, e.g.,* col.1, ll.20-40. However, as admitted by the Examiner in the Office Action at ¶ 3, Gadow fails to disclose or suggest that the flow of material between the two electrodes (in either form of the ozonizer) is turbulent.

To cure the admitted deficiency of Gadow, the Examiner turns to Kinney. Specifically, the Examiner alleges that “Kinney shows in an ozonizer the creating of turbulence in the gas stream within the space between the conductor and the dielectric (col.4, lines 14-24).”

However, the Applicant respectfully submits that Kinney does not disclose a dielectric and a conductor *positioned* to create a turbulent air flow therebetween, as recited by claims 1 and 36 of the present application. While Kinney may disclose *creating* turbulence in a gas stream within the space between the conductor and the dielectric, Kinney does not disclose that the turbulence is created due to the *positioning* of the dielectric and the conductor. Rather, Kinney discloses that “the gas stream may be baffled or otherwise manipulated to become turbulent within the spaces between the electrodes and dielectrics.” *See* col.4, ll.20-22.

Because Kinney states that baffling or a different apparatus is required to create turbulence between the dielectric and the conductor, it is not possible that the plates in the ozonizer disclosed by Kinney are *positioned* so as to create turbulence therebetween. As such, Kinney fails to remedy the deficiencies of Gadow.

Because Gadow in view of Kinney fails to disclose or suggest the claimed apparatus including “a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween,” claims 1 and 36 are allowable over Gadow in view of Kinney. Claims 2-11 and 13-34 depend from claim 1 and are also allowable for at least these reasons. Therefore, the Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-7, 9-11, 13-17, 19-21, 24-34 and 36.

**II. Claims 8, 18, 22 and 23 are Patentable over
Gadow in view of Kinney and further in view of Racca**

Claims 8, 18, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gadow in view of Kinney and further in view of Racca. For the following reasons, this rejection is respectfully traversed.

As discussed above, Gadow in view of Kinney fails to disclose or suggest the claimed apparatus including “a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween.” Racca fails to cure the deficiencies of Gadow and Kinney.

Racca discloses an ozone generator having a first electrode having a specific pattern and a second, larger electrode spaced apart from the first electrode. The electrodes are positioned so that “a corona is developed for a finite distance beyond the edges of the first electrode.” *See* Abstract. Racca does not describe the flow of air between the electrodes and certainly does not mention that the electrodes may be positioned so as to create a turbulent flow therebetween. As such, Racca fails to remedy the deficiencies of Gadow and Kinney.

Therefore, because Gadow in view of Kinney fails to disclose or suggest the claimed apparatus including “a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween” and because Racca fails to cure the deficiencies of Gadow and Kinney, claim 1 is allowable over Gadow in view of Kinney and further in view of Racca. Claims 8, 18, 22 and 23 depend from claim 1 and are allowable for at least these reasons. Therefore, the Applicant respectfully requests that the Examiner withdraw the rejection of claims 8, 18, 22 and 23.

III. Claim 35 is Patentable over Gadow in view of Kinney and Iwanaga

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gadow in view of Kinney and Iwanaga. For the following reasons, this rejection is respectfully traversed.

Claim 35 recites “a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween.”

As discussed above, Gadow in view of Kinney fails to disclose or suggest the claimed apparatus including “a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween.” Iwanaga fails to cure the deficiencies of Gadow and Kinney.

Iwanaga discloses an ozone generator having multiple ozonizing chambers connected in series. The voltage applied to the electrodes in each individual ozonizer may be varied so as to create different ozone discharges. *See* Abstract. Iwanaga does not describe the flow of air between the electrodes of each individual ozonizer and certainly does not mention that the electrodes may be positioned so as to create a turbulent flow therebetween. As such, Iwanaga fails to remedy the deficiencies of Gadow and Kinney.

Therefore, because Gadow in view of Kinney fails to disclose or suggest the claimed apparatus including "a dielectric spaced apart from [a] conductor . . . wherein said dielectric and said conductor are positioned to create a turbulent air flow therebetween" and because Iwanaga fails to cure the deficiencies of Gadow and Kinney, claim 35 is allowable over Gadow in view of Kinney and Iwanaga. Therefore, the Applicant respectfully requests that the Examiner withdraw the rejection of claim 35.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. The Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. The Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael J. Bell", with a long horizontal flourish extending to the right.

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